



UNITED STATES
DEPARTMENT OF THE INTERIOR

BUREAU OF INDIAN AFFAIRS

NAVAJO AGENCY

WINDOW ROCK, ARIZONA

June 26, 1957

Resources-Realty
Minerals

*I-149-Ind-8909
lease file
inspection file*

RECEIVED

JUN 27 1957

U. S. Geological Survey
Carlsbad, N. M.

*Received
June 27 1957
I-149-Ind-8909*

Mr. C. M. McConnell
Deputy Regional Mining Supervisor
United States Geological Survey
Post Office Box 829
Carlsbad, New Mexico

Dear Mr. McConnell:

This will reply to your letter of June 18, 1957 with reference to our letter of March 29, 1957 regarding Mining Lease Contracts Nos. I-149-Ind-8906, 8907, and 8909.

Our records show that Contract No. I-149-Ind-8909 is still in effect. This will correct our letter dated March 29, 1957 to read that Contracts Nos. I-149-Ind-8906, 8907, and 8908 are cancelled.

Yours very truly,

M. D. Long
M. D. Long
Realty Officer

Copy mailed to Washington 1/2/52

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF INDIAN AFFAIRS

Contract No. I-149-Ind-39

MAY 15 1952

MINING LEASE ALLOTTED INDIAN LANDS

(For Minerals other than Oil and Gas)

Geological Survey

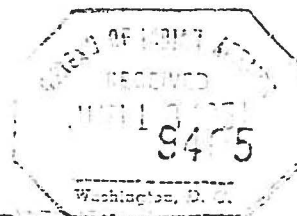
Carlsbad, N. M.

Mining Lease

State of

Reservation

(Write all names and addresses in full)



THIS INDENTURE OF LEASE, made and entered into in quintuplicate, on this 16 day of

May, 1952, by and between Sa ta sah pah Indians

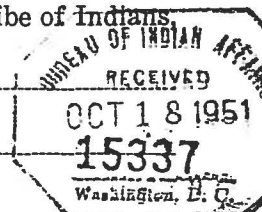
allottee No. 053087 of the Santa Jo tribe of Indians

of McKinley County, State of New Mexico

part 3 of the first part, hereinafter called the lessor, and George Joseph and

J. F. Holman, Gallup, N. M.

of



State of New Mexico, part 1 of the second part, hereinafter called the lessee, under and in pursuance of the provisions of existing law and the rules and regulations prescribed by the Secretary of the Interior relative to mining leases covering restricted Indian allotments.

WITNESSETH

1. That the lessor, for and in consideration of \$1, receipt whereof is hereby acknowledged, and of the royalties, covenants, stipulations, and conditions hereinafter contained and hereby agreed to be paid and observed by the lessee, doth hereby demise, grant, and lease unto the said lessee, the following-described tract of land lying and being within the

Reservation; county of McKinley, and State of New Mexico

to wit: 15/4,

of section 26, township 13 N., range 10 E., meridian, and containing 130 acres, more or less, for the full term of 15 years from the date of approval hereof, for the sole purpose of prospecting for and mining minerals, as follows: Uranium & related minerals.

the lessee to occupy so much only of the surface of said land as may be reasonably necessary to carry on the work of prospecting for, mining, milling, storing, and removing such minerals.

2. The term "Superintendent" as used herein shall refer to the superintendent or other official in charge of the Indian Agency having jurisdiction over the lands leased.

3. In consideration of the foregoing, the lessee hereby agrees:

(a) **ROYALTY.**—To pay, or cause to be paid, to the Superintendent, for the use and benefit of the lessor, as royalties, the sums of money as follows, to wit: * as per lease & regulations in force at the time of approval of this lease. It is the policy of this nation and department of the Interior to encourage the development of the lands of the United States and to provide for the benefit of the people thereof.

All royalties accruing for any month shall be due and payable on or before the twenty-fifth day of the month succeeding.

(b) **ANNUAL RENTAL.**—To pay, or cause to be paid, to the Superintendent for the use and benefit of the lessor, in advance beginning with the date of approval of the lease, as annual rental, the following: Twenty-five cents per acre for the first calendar year or fraction thereof, 50 cents per acre per annum for the second and third years, and \$1 per acre per annum in advance for each and every calendar year thereafter during the continuance of the lease; it being understood and agreed that said sums so paid shall be a credit on the royalties accruing during the year for which the payment of annual rental is made, and that said annual rental when paid shall not be refunded to the lessee because of any subsequent surrender or cancellation hereof.

(c) **DILIGENCE, PREVENTION OF WASTE.**—To exercise diligence in the conduct of prospecting and mining operations; to carry on development and operations in a workmanlike manner and to the fullest possible extent; to commit no waste on the said land and to suffer none to be committed upon the portion in his occupancy or use; to comply with all the requirements of the laws of the State in which the land is located; to take appropriate steps for the preservation of the property and the health and safety of workmen; promptly to surrender and return the premises upon the termination of this lease to whomsoever shall be lawfully entitled thereto, in as good condition as received, excepting for the ordinary wear and tear and unavoidable accidents in their proper use; not to remove therefrom any buildings or permanent improvements erected thereon during the said term by the said lessee, but said buildings and improvements shall remain a part of said land and become the property of the owner of the surface of the land, excepting the office fixtures and records, personal property, tools, pumping and drilling outfits, boilers, engines, and mining machinery, which shall remain the property of the lessee and may be removed at any time prior to 60 days after the termination of the lease by forfeiture or otherwise, provided the payments agreed upon by this lease have been made and the lease terms and regulations applicable thereto have been fully complied with, but not otherwise; not to permit any nuisance to be maintained on the premises under lessee's control, nor allow any intoxicating liquors to be sold or given away for any purpose on such premises; and not to use such premises for any other purposes than those authorized in this lease.

(d) **DEVELOPMENT.**—The land described herein shall not be held by the lessee for speculative purposes, but in good faith for mining the minerals specified; and the failure by the lessee in the diligent development and continued operation of the mine or mines, except when operations may be interrupted by strikes, the elements, or casualties not attributable to the lessee, shall be held as a want of compliance with the purposes of this lease and shall render it subject to cancellation: *Provided*, That whenever the Secretary of the Interior shall consider the marketing facilities inadequate or the economic conditions unsatisfactory, he may authorize the suspension of operations for such time as he may deem advisable, but such action will not release the lessee from the payment of the advance annual rental.

(e) **MONTHLY STATEMENTS.**—To keep an accurate account of all mining operations, showing the sales, prices, dates, purchasers, and the whole amount of minerals mined, the amount removed, and the gross receipts derived therefrom, and to furnish the Superintendent sworn monthly reports thereon not later than the twenty-fifth of the succeeding month; and all sums due as royalty and advance rental shall be a lien on all implements, tools, movable machinery, and all other personal chattels used in operation upon said property, and upon all of the unsold minerals obtained from the land herein leased, as security for payment of said sums. An audit of the lessee's accounts and books shall be made annually or at such times as may be directed by the Superintendent by certified public accountants approved by the Secretary of the Interior and at the expense of the lessee. The lessee shall furnish free of cost a copy of such audits to the Secretary of the Interior through the Superintendent within 30 days after the completion of each auditing.

(f) **REGULATIONS.**—To abide by and conform to any and all regulations of the Secretary of the Interior now or hereafter in force relative to such leases: *Provided*, That no regulations hereafter approved shall effect a change in rate of royalty, the annual rental herein specified, or the term of this lease, without the written consent of the parties to this lease.

* Here insert the royalties agreed upon in accordance with applicable regulations.

S T I P U L A T I O N

Modifying Allotted Land Mining Lease Contract No1 I-149-ind-3909.

Above numbered mining lease is hereby modified to provide as follows:

"Wherever minerals or other products are recovered which are not included in determining mine value per dry ton as defined on page one of continuation sheet of form 5-154 attached and made a part of said lease, there shall be paid to the lessor for such minerals or other products, a royalty of 10 per cent of the gross value of such products."

This modification shall not effect any of the other provisions of said lease, and said lease shall remain in force and unaltered except as to the modification herein.

WITNESSES TO SIGNATURES:

DW Donnell

Na ta nah gah Esedero
Na ta nah gah Esedero, Lessor

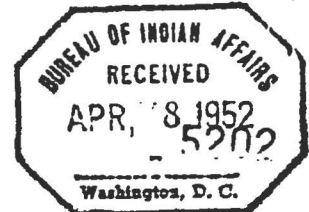
George Hanosh
George Hanosh, Lessee

J. F. Savage

D. F. Mollica
D. F. Mollica, Lessee

ACKNOWLEDGMENT OF LESSOR

STATE OF NEW MEXICO)
(SS
COUNTY OF MCKINLEY)



BEFORE ME, a Notary Public, on this 17th day of March 1952, personally appeared Na ta nah gah Esedero, to me known to be the identical person who executed the foregoing stipulation, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

My Commission expires:
Nov. 19, 1955

Guido Ferrari
Notary Public

CONSENT OF SURETY

CENTRAL SURETY AND INSURANCE CORPORATION, surety for George Hanosh and D. F. Mollica on the bond accompanying the lease above designated, hereby consents to the foregoing modification and agrees that said bond shall remain in full force and effect covering obligations of the lessee.

Dated at Kansas City, Missouri this 24th day of March, 1952.

CENTRAL SURETY AND INSURANCE CORPORATION

R. W. Wyatt
R. W. Wyatt, Attorney-in-Fact

STIPULATION

Modifying allotted land mining lease Contract No. I-149-Ind-8909.

WHEREAS, above numbered mining lease was made for the sole purpose of prospecting for and mining minerals, as follows:

"Uranium and related minerals".

This amendment shall not effect any of the other provisions of said lease and said lease as originally signed shall remain in force and unaltered except as to the modification herein set out.

It is therefore agreed that the wording "Uranium bearing ores", is hereby substituted for "Uranium and related minerals".

WITNESSES TO SIGNATURES:

Wm. D. Martinez
William D. Martinez

Na ta nah gah Esedero
Na ta nah gah Esedero, Lessor

George Hanosh
George Hanosh

D. F. Mollica
D. F. Mollica

his Right Hand Print

ACKNOWLEDGMENT OF LESSOR

STATE OF NEW MEXICO

COUNTY OF MCKINLEY

)
(SS
)



BEFORE ME, a Notary Public, on this 27th day of February 1952, personally appeared Na ta nah gah Esedero, to me known to be the identical person who executed the foregoing stipulation, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

*my Commission expires
Nov. 19, 1955*

Guido Fenari
Notary Public

CONSENT OF SURETY

CENTRAL SURETY AND INSURANCE CORPORATION, surety for George Hanosh and D. F. Mollica, on the bond accompanying the lease above designated, hereby consents to the foregoing modification and agrees that said bond shall remain in full force and effect covering obligations of the lessees.

Dated at Denver, Colorado this 28th day of February 1952.

CENTRAL SURETY AND INSURANCE CORPORATION

By Leonard Stebbins
(Leonard Stebbins)
Attorney-in-Fact

Form 5-154
(October 1939)

CONTINUATION SHEET

Contract No.
I-149-Ind-8909

MINING LEASE ALLOTTED INDIAN LANDS
(For Minerals other than Oil and Gas)

The Lessee hereby agrees to pay or cause to be paid to the Superintendent for the use and benefit of the Lessor, as royalty, the sums of money as follows:

Percentage Royalty Schedule

<u>Mine Value Per Dry Ton</u>	<u>Royalty Percentage of Mine Value Per Dry Ton</u>
\$ 0.01 to \$ 10.01	10%
\$ 10.01 to \$ 20.01	11%
\$ 20.01 to \$ 30.01	12%
\$ 30.01 to \$ 40.01	13%
\$ 40.01 to \$ 50.01	14%
\$ 50.01 to \$ 60.01	15%
\$ 60.01 to \$ 70.01	16%
\$ 70.01 to \$ 80.01	17%
\$ 80.01 to \$ 90.01	18%
\$ 90.01 to \$100.01	19%
\$100.01 or more	20%

"MINE VALUE PER DRY TON", wherever used herein is hereby defined as the dollar value per dry ton of crude ores at the mine as paid for by the Atomic Energy Commission or other government agency before allowance for transportation and development; however, if the government at any time hereafter does not establish and pay for said ores on a fixed or scheduled dollar value per dry ton of crude ores at the mine, or said ores contain saleable minerals, some, or all, of which are disposed of to a custom treatment plant or smelter for treatment and sale, then mine value per dry ton shall be the gross value per dry ton of said crude ore as paid for by the Atomic Energy Commission or other government authorized agency mill or other buyer, less any allowances or reimbursements for the following specific items: (1) transportation of ores; (2) allowances for exploration for, or development of ores; and (3) treatment or beneficiation of ores; which specific items shall in such event be deducted from the gross sales price received from the metal content of said ores by the seller before said percentage royalty is calculated and paid. Such payments shall be made on or before the fifteenth (15th) day of the month next following receipt by Lessee of payment for said ores together with a statement of the mine value of said ores and the amount of royalty due on each lot shipped and sold.

In addition to the above royalty payments there shall be paid to the Superintendent for the use and benefit of the Lessor 10% of any bonus paid by the United States Atomic Energy Commission for the production of ore from the above lease and particularly bonuses for the initial production of uranium ore from said lease. But this provision shall not be limited to bonuses for initial production but shall apply to any and all bonuses paid for the production of ore.

Annual Rental

The Lessee agrees to pay or cause to be paid to the Superintendent for the use and benefit of the Lessor, in advance beginning with the date of approval of the lease as annual rental, the sum of One (\$1.00) Dollar per acre for the first calendar year and the sum of One (\$1.00) Dollar per acre, in advance, for each and every calendar year thereafter during the continuation of this lease.

The rentals so paid shall not be a credit on the royalties accruing under this lease and shall not be refunded to the Lessee because of any subsequent surrender or cancellation of the lease.

Development

The land described herein shall not be held by the Lessee for speculative purposes but in good faith for mining mineral specified. The Lessee shall expend in the development of said lease in each year the sum of Ten (\$10.00) Dollars per acre. Such development shall consist of road building, prospecting or drilling and mining operations, and the Lessee shall each year submit to the Superintendent satisfactory reports regarding development expenditures, which reports shall be furnished within ten (10) days after the yearly anniversary date of the lease; and failure by the Lessee in the diligent development and continued operation of the mine or mines, or the expenditures of the sum provided herein for the development of said lease in each year except when the operations may be interrupted by strikes, the elements or casualties not attributable to the Lessee, shall be held as want of compliance with the purposes of this lease and shall render it subject to cancellation; provided that whenever the Secretary of the Interior shall consider the marketing facilities inadequate or economical conditions unsatisfactory he may authorize the suspension of operations for such time as he may deem advisable but such action will not release the Lessee from the payment of the advance annual rental.

Payment for Surface Damage

The Lessee shall pay to the Superintendent for the use and benefit of the Lessor, as damage to the surface of the lands covered by this lease, Ten (\$10.00) Dollars per acre for each acre of land upon which the vegetation of any kind is destroyed or on which the top soil may be removed, turned or damaged by the mining operations conducted on said lease, but not including the reasonable use of the surface for roads and the construction of facilities for the operation of this lease. Provided, however, that in the event the royalty payments made under this lease shall equal or exceed the amount due for surface damages as provided in this paragraph then and in that event the Lessee shall be released from the obligation to pay such surface damages.

The Lessee shall not be permitted to surrender or terminate this lease until the damages provided for in this paragraph have been paid and in the event of the cancellation or forfeiture of this lease by the Secretary of the Interior as provided in said lease, the Lessee shall remain obligated to pay for surface damages as herein provided and the bondsmen of the Lessee shall not be released from liability until such surface damages are paid. The extent of the surface damages and the amount due therefor, shall be determined by the Secretary of the Interior.

The lessee shall employ Navajo labor in all positions for which they are qualified, including truck drivers, and shall protect the Indian grazing rights and other Indian rights to the surface of the lands.

The lessee shall not discriminate against any employee or applicant for employment because of race, creed, color, or national origin, and shall require an identical provision to be included in all sub-contracts hereunder.

Two witnesses to signature
of Lessee

Bro. Arthur P. Chitt
Rev. P. R. Schickel

George Hanosh
Lessee
M. H. Mallica
(Witness)

Two witnesses to signature
of Lessor

John B. Romero
William D. Martinez

HIS THUMB PRINT
NA TA NAN GAN Esedkac
Lessor

Lessor

Lessor

Lessor

Lessor

Lessor

(g) ASSIGNMENT OF LEASE.—Not to assign this lease or any interest therein by an operating agreement or otherwise nor to sublet any portion of the leased premises before restrictions are removed, except with the approval of the Secretary of the Interior. If this lease is divided by the assignment of an entire interest in any part of it, each part shall be considered a separate lease under all the terms and conditions of the original lease.

(h) BOND.—To furnish such bond as may be required by the regulations of the Secretary of the Interior conditioned upon compliance with the terms of this lease.

4. MILLING.—All ores or minerals mined on said land shall be cleaned and prepared for market thereon, and no ore or crushed material shall be removed therefrom to be cleaned or prepared for market without the written consent of the Secretary of the Interior.

5. INSPECTION.—The leased premises and producing operations, improvements, machinery and fixtures thereon and connected therewith, and all books and accounts of the lessee shall be open at all times for inspection by the lessor and his agents or any duly authorized representative of the Secretary of the Interior.

6. DISPOSITION OF SURFACE.—The lessor expressly reserves the right to lease, sell, or otherwise dispose of the surface of the lands embraced within this lease under existing law or laws hereafter enacted, such disposition to be subject at all times to the right of the lessee herein to the use of so much of said surface as is necessary in the extraction and removal of the minerals from the land herein described in accordance with this lease.

7. SURRENDER AND TERMINATION.—The lessee shall have the right at any time during the term hereof to surrender and terminate this lease or any part thereof upon the payment of all rentals, royalties, and other obligations due and payable to the lessor, and the further sum of \$1, and in the event restrictions have not been removed, upon a showing satisfactory to the Secretary of the Interior that full provision has been made for the conservation and protection of the property, the lease to continue in full force and effect as to the lands not so surrendered. If this lease has been recorded lessee shall file a recorded release with his application to the Superintendent for termination of this lease.

8. CANCELATION AND FORFEITURE.—When, in the opinion of the Secretary of the Interior, there has been a violation of any of the terms and conditions of this lease before restrictions are removed, the Secretary of the Interior shall have the right at any time after 30 days' notice to the lessee, specifying the terms and conditions violated, and after a hearing, if the lessee shall so request within 30 days of receipt of notice, to declare this lease null and void, and the lessor shall then be entitled and authorized to take immediate possession of the land: *Provided*, That after restrictions are removed the lessor shall have and be entitled to any available remedy in law or equity for breach of this contract by the lessee.

9. RELINQUISHMENT OF SUPERVISION BY THE SECRETARY OF THE INTERIOR.—Should the Secretary of the Interior, at any time during the life of this instrument, relinquish supervision as to all or part of the acreage covered hereby, such relinquishment shall not bind lessee until said Secretary shall have given 30 days' written notice. Until said requirements are fulfilled, lessee shall continue to make all payments due hereunder as provided in section 3 (a) and (b). After notice of relinquishment has been received by lessee, as herein provided, this lease shall be subject to the following further conditions:

(a) All rentals and royalties thereafter accruing shall be paid directly to lessor or his successors in title.

(b) If, at the time supervision is relinquished by the Secretary of the Interior as to all lands included in this lease, lessee shall have made all payments then due hereunder, and shall have fully performed all obligations on its part to be performed up to the time of such relinquishment, then the bond given to secure the performance hereof, on file in the Indian Office, shall be of no further force or effect.

10. HEIRS AND SUCCESSORS IN INTEREST.—It is further covenanted and agreed that each obligation hereunder shall extend to and be binding upon, and every benefit hereof shall inure to, the heirs, executors, administrators, successors of, or assigns of the respective parties hereto.

11. GOVERNMENT EMPLOYEES CANNOT ACQUIRE LEASE.—No lease, assignment thereof, or interest therein will be approved to any employee or employees of the United States Government whether connected with the Indian Service or otherwise, and no employee of the Interior Department shall be permitted to acquire any interest in such leases by ownership of stock in corporations having leases or in any other manner.

IN WITNESS WHEREOF, the said parties have hereunto subscribed their names and affixed their seals on the day and year first above mentioned.

TWO WITNESSES TO EXECUTION BY LESSOR:

John B. Clements
214 - W - Hill

P. O. Gallup New Mexico

William B. Martinez

P. O. 205 E. Jackson St. Gallup

New Mexico

TWO WITNESSES TO EXECUTION BY LESSEE:

Bro. Arthur Puthoff

P. O. Gallup New Mexico

Rev. P. R. Schieffer

P. O. Gallup, N. M.

State of New Mexico

County of McKinley

NA TA NAH GAH Esedero [SEAL]
Na ta nah gah Esedero

[SEAL]

George Harosh [SEAL]

H. F. Mallica [SEAL]

Attest: _____

ACKNOWLEDGMENT OF LESSOR

Before me, a notary public, on this 16th day of May, 1951, personally appeared Na ta nah gah Esedero, to me known to be the identical person who executed the within and foregoing lease, and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purposes therein set forth.

E. Harosh
Notary Public.

My commission expires June 19, 1954

UNITED STATES
DEPARTMENT OF THE INTERIOR

Washington, D. C., _____, 19____

The within lease is hereby _____ approved.

Assistant Secretary of the Interior.
DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
WASHINGTON 25, D. C.

Approved under _____ day of _____
Filed for record this _____ day of _____
January 11, 1949 (14 F.R. 2508,
and Order No. 551, Amendment
16 E.R. 8252).

APPROVED:

Rental received, \$ 150.00

Chief, Branch of Land



United States Department of the Interior

GEOLOGICAL SURVEY

Conservation Division
P. O. Box 26124
Albuquerque, New Mexico 87125

July 2, 1979

Memorandum

To: Files

From: Mining Engineer, SRMA, Albuquerque, New Mexico

Subject: Navajo Indian Allotment No. 059387 (2872), NE/4, Section 26, T. 13 N., R. 10 W., McKinley County, New Mexico

The subject allotment was examined by the writer June 13, 1979. The examination was made in response to a BIA request for recommendations and advice regarding the proposed negotiation of a uranium mining lease for said allotment.

The subject property is located in McKinley County, New Mexico about 12 miles north of Grants. Access is gained from U. S. Highway 66 or State Highway 53 by an improved dirt road connecting those two highways in the vicinity of Haystack Mountain and Mesa Montañosa. Several unimproved dirt roads provide access within the northeastern portion of the allotment.

The allotment is situated on a broad, northwest trending ledge near the base of Mesa Montañosa. The terrain is relatively flat and slopes gently toward the east-northeast except in the southern portion of the allotment where the ledge drops sharply over 100 feet to the broad plain below. Elevations range from about 6900 feet in the plain to the south to about 7600 feet at the top of Mesa Montañosa to the north. The average elevation of the allotment is 7000 to 7100 feet above mean sea level. Surface drainages in the area are small, deeply incised, intermittent arroyos that carry runoff from the higher elevations southward to the broad plain.

The climate of the area is semiarid. Average annual precipitation is about 10 inches with about one-half of this total occurring in July through September. The mean annual temperature is about 49°F, and minimum and maximum mean temperatures occur in January



ONE HUNDRED YEARS OF EARTH SCIENCE IN THE PUBLIC SERVICE

(29°F) and July (71°F) respectively. The average diurnal variation in temperature is 30°-40°F, and temperature inversions are common. Relative humidity is generally low and sunshine is abundant. Air circulation is determined by the local topography. Winter winds tend to be from the north and northeast while spring winds tend to be from the southwest. Night and early morning winds are generally 5 mph or less, and daylight winds are higher.

Vegetation consists of native grasses, shrubs and forbs with sparse to moderately thick stands of piñon and juniper trees. The present ground cover is good to excellent due to the abnormally large amount of precipitation received during the late winter and early spring of this year. The wildlife of the area is probably a mixture of various species of small mammals, birds and reptiles common to grassland and piñon-juniper habitats. Mule deer may occur at the higher elevations of Mesa Montañosa, but stable, resident populations of the species are unlikely due to human presence and activity.

The present primary land usages in the area appear to be livestock grazing, predominantly that of sheep and goats, and personal residence. Three occupied dwellings are known to exist within the subject allotment. Agriculture, if any, would be severely restricted by the general lack of adequate precipitation or irrigation systems. Both open-pit and underground uranium mining has been very common in the area, presumably from the early 1950's to the late 1960's or early 1970's. Numerous abandoned mines are located on the ledge in an east-southeast trend from the subject allotment into Section 25, T. 13 N., R. 10 W. and Section 30, T. 13 N., R. 9 W. Several active uranium mines are located farther to the east in Sections 19 and 30, T. 13 N., R. 9 W., and exploration drilling has recently been conducted at the base of Mesa Montañosa in Section 24, T. 13 N., R. 10 W. Recent observations in the Ambrosia Lake area indicate that old abandoned uranium mines are becoming more attractive sources of ore as the price of uranium concentrate increases.

The trade center of the area is about 12 miles to the south at Grants-Milan where a wide variety of retail services are available. The smaller, surrounding villages of Prewitt, Ambrosia Lake, San Mateo, and Bluewater offer a very limited selection of retail services. Gallup and Albuquerque are located approximately 52 miles west and 72 miles east respectively.

According to our records, the subject allotment has been leased for uranium mining twice before. The most recent lease, 14-20-0603-8347, was issued in August 1964 to Allen Sphar and Robert Allmon (S & A Mining Company). No work was conducted, and the lease was cancelled in August 1965. Prior to that, George Hanosh and D. F. Mollica (Hanosh Mines Inc.) leased the allotment under contract

I-149-Ind-8909 which was effective in November 1951. Extensive open-pit and underground mining were conducted under this lease, and mill receipts on file show that about 11,174 dry tons of limestone ore averaging approximately 0.367% U_3O_8 and 0.081% V_2O_5 were produced. The uranium grades ranged from 0.170% to 0.615% while the vanadium grades ranged from 0.030% to 0.264%. Royalties on the ore produced totaled \$39,655.35. The mill receipts indicate that ore production ceased in September 1957, but the lease cancellation date is not known.

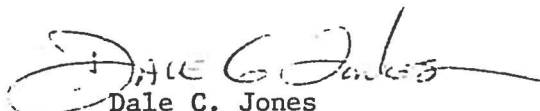
The primary uranium host in the area is the Jurassic Todilto Limestone, and all of the mining in Sections 23, 25, and 26, T. 13 N., R. 10 W. and Section 30, T. 13 N., R. 9 W. was conducted in this strata. Within the subject allotment, the mining occurred in a medium, irregularly shaped deposit in the middle and lower units of the Todilto. These units are referred to locally as the basal "platy" and medial "crinkly" zones, and they consist of fine-grained laminated and thin-bedded limestone containing thin siltstone partings and locally seams of gypsum. Bedding in the platy unit is undisturbed, but that of the crinkly unit is intensely crenulated. The platy and crinkly zones are about equal in thickness, and the total thickness of both zones probably ranges from about 2.5 to 15 feet with an average of about 7 to 8 feet. Unoxidized minerals in the Todilto Limestone have been identified as uraninite, coffinite, paramontroseite, haggite, fluorite, pyrite, marcasite and galena. Barite, specular hematite, vanadium clay and recrystallized calcite are closely associated with these minerals and probably are also primary. Most of the Todilto uranium deposits occur at or near the surface, and oxidation has led to the widespread occurrence of the conspicuous yellow and green secondary minerals tyuyamunite, metatyuyamunite, uranophane, and probably sklodowskite. Less common secondary minerals are carnotite, cuprosklodowskite, gummite, santafeite, liebigite, and various oxides of manganese and iron.

The surface of the allotment was closely examined, and the attached map indicates that all of the examined mine workings are located within the allotment boundaries. The surface has been extensively disturbed by numerous large and small open cuts and waste dumps, and apparently no effort was made to reclaim these workings. Most of the dumps consist of topsoil and overburden, but limestone waste is also present. The dumps and cut bottoms support sparse vegetation, but the color of the dumps contrasts with the surrounding natural landscape. Some of the surface workings are immediately adjacent to three occupied dwellings, presumably those of the allottees. An open inclined shaft is located roughly southeast from the above mentioned dwellings. This entry evidently provided access to the underground mine workings that reportedly yielded the majority of the ore from the allotment. An old hoist platform and explosives magazine are still located at the inclined shaft, and numerous open exploration boreholes were found in the vicinity of the shaft.

Our files do not contain any maps or exploration data from which ore reserves for the subject allotment could be calculated, and the surface examination did not provide any significant information about the uranium producing potential of the property. Some of the waste material around the surface workings could possibly be processed economically, but most of said waste is probably barren and could not. Secondary mineralization, probably carnotite or tyuyamunite, was observed in the surface workings but does not necessarily indicate the presence of economically recoverable ore. The mill records for past production from the allotment show that the lowest grade of ore mined was 0.170% U_3O_8 . This indicates that lower grade material which is now economically recoverable was left in place, but the amount of such material cannot be estimated. Undoubtedly, an extensive exploration program would be required to accurately assess the uranium potential of the allotment. It is possible that the party now wishing to lease the property has additional data that indicates or verifies the presence of sufficient recoverable ore reserves within the allotment because that party has based their proposed lease negotiations on an estimated monthly production of 1500 tons of ore at 0.10% U_3O_8 for an estimated mine life of 2 to 4 years.

Mill records show that ore mined from the allotment also contained as much as 0.264% vanadium (V_2O_5) which raises the question of future ore having any additional value for its vanadium content. I discussed this matter with United Nuclear-Homestake Partners' Chief Metallurgist, and he indicated that any significant additional value would require a very high vanadium content. Although vanadium is a by-product of the uranium milling process, only 10% of the contained vanadium is actually recovered, and the by-product value may or may not offset the cost of recovery. The vanadium is recovered solely because it is a penalized impurity in the uranium concentrate. Despite this fact, it seems advisable that the recovery of minerals associated with uranium be considered when negotiating a royalty schedule for the subject allotment.

Negotiation of a mineral lease for the subject allotment should also consider the condition of the allotment surface. As previously mentioned, past mining activities have seriously damaged the land surface by reducing its grazing capacity and degrading its appearance, and it would be very beneficial to the allottees if the lessee could be committed to restoring past as well as future disturbance. If surface mining operations were conducted under a new lease, the cost of reclaiming the old surface workings might not be prohibitive for the lessee.


Dale C. Jones
Mining Engineer

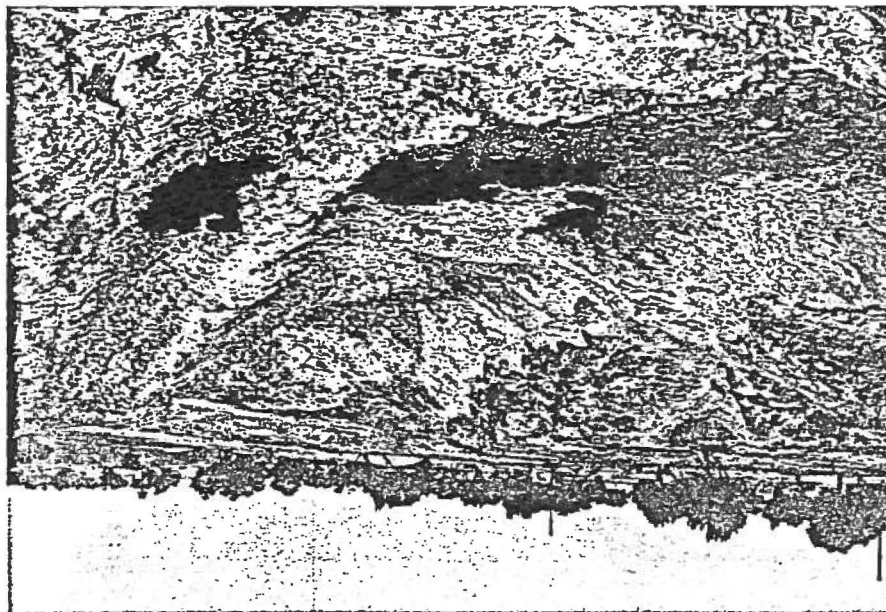
Original to: Area Director, Navajo Area Office, BIA
cc: Superintendent, Eastern Navajo Agency, BIA
Acting Conservation Manager, Central Region, USGS
Files (8347, 8909, Negotiated Navajo Allotted Leases)

79

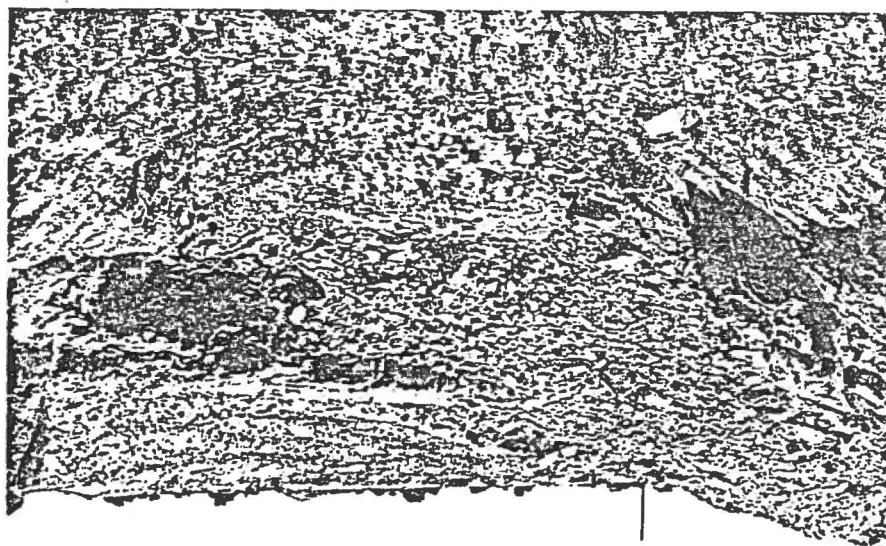


Looking approximately WSW across NE/4, Sec.
26, T. 13 N., R. 10 W. from Mesa Montanosa;
waste dumps visible in right center of
photo

Large open cuts within NE/4, Sec. 26



JUN 79

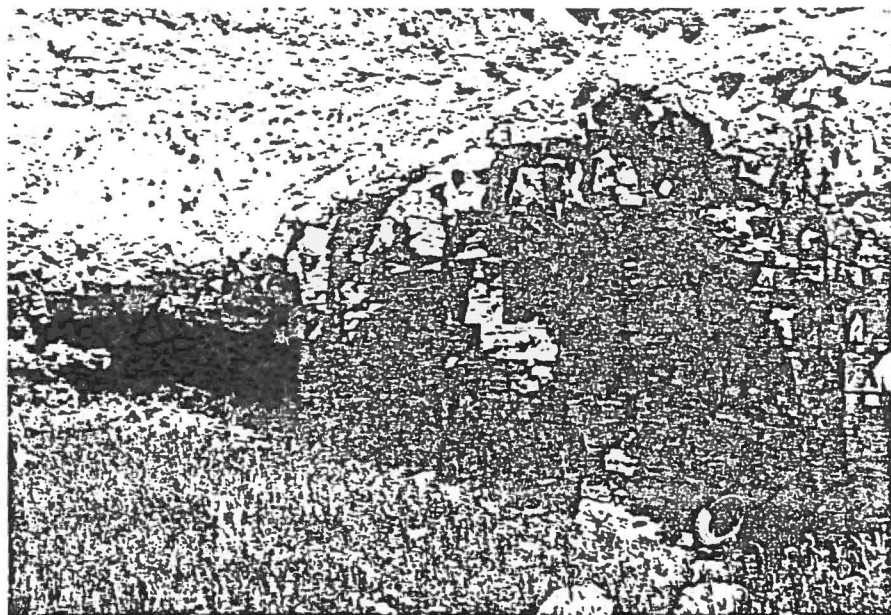


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Open cut immediately adjacent to residences
in NE/4, Sec. 26

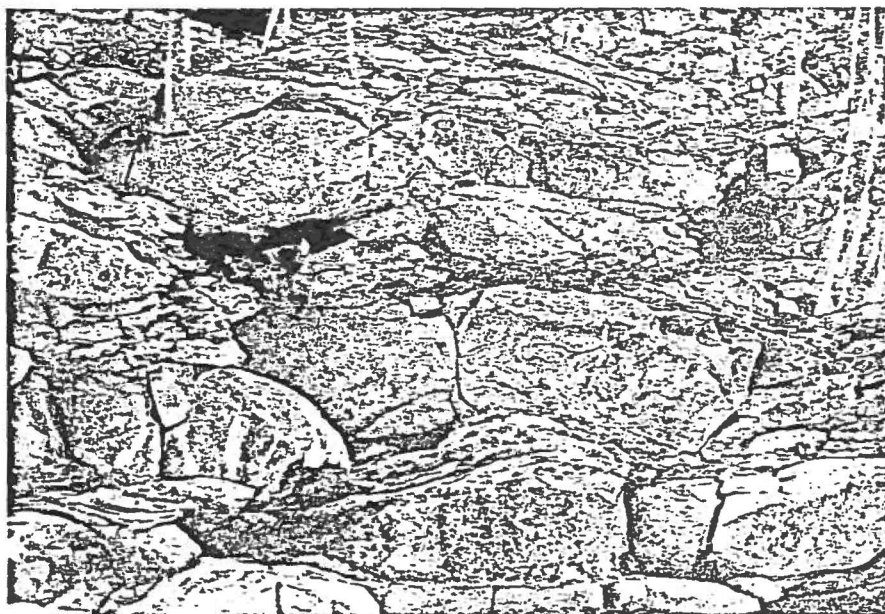


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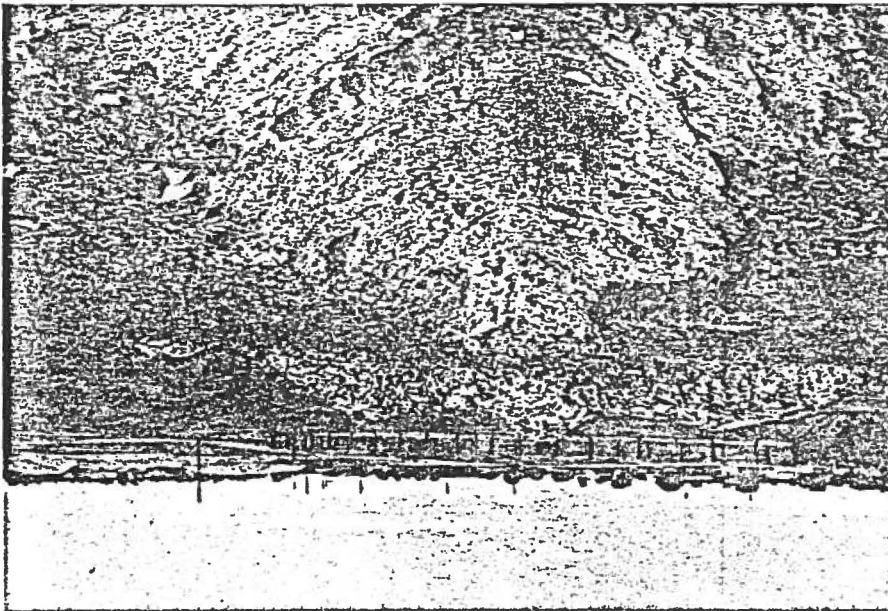
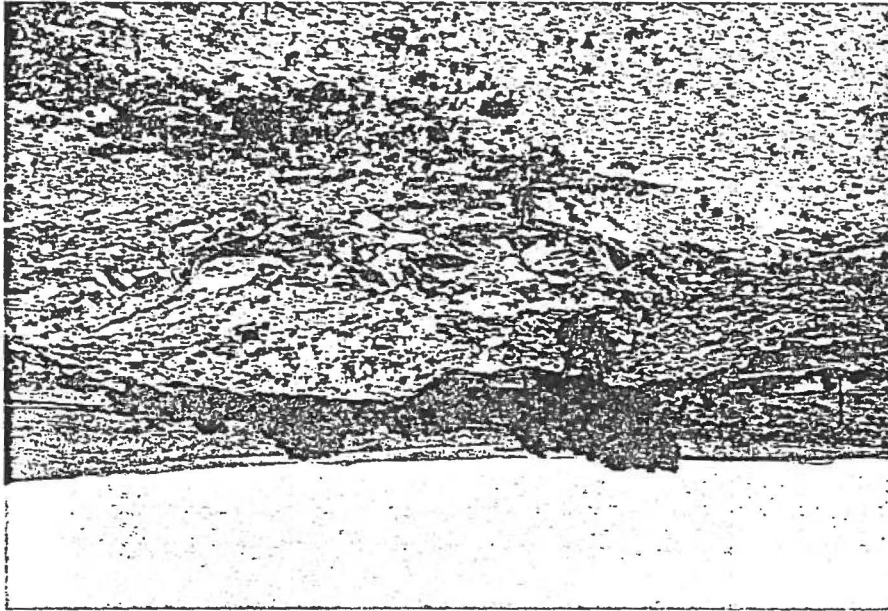


Jurassic Todilto Limestone exposed in
open cut

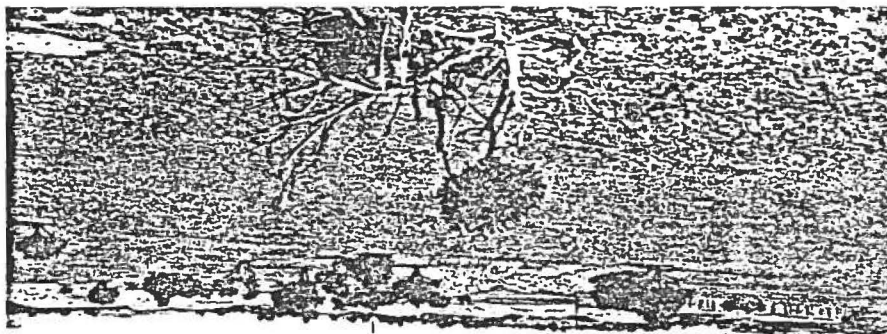
Yellow secondary mineralization (carnotite
or tyuyamunite) on Jurassic Todilto
Limestone in open cut



Smaller open cuts in NE/4, Sec. 26

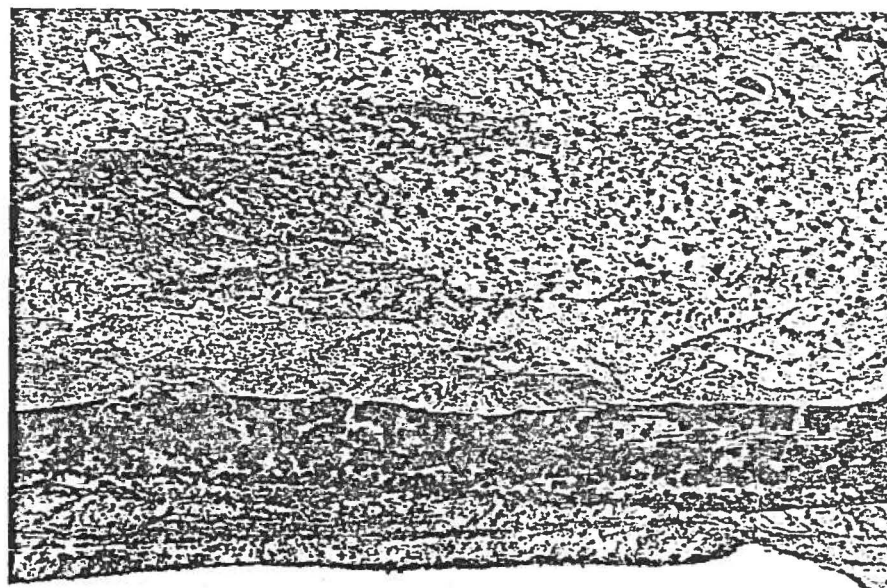


Waste dumps around open cuts in NE/4,
Sec. 26



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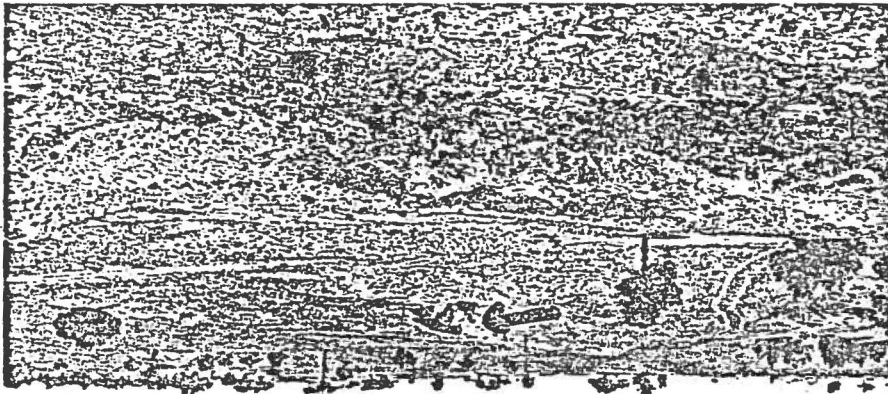
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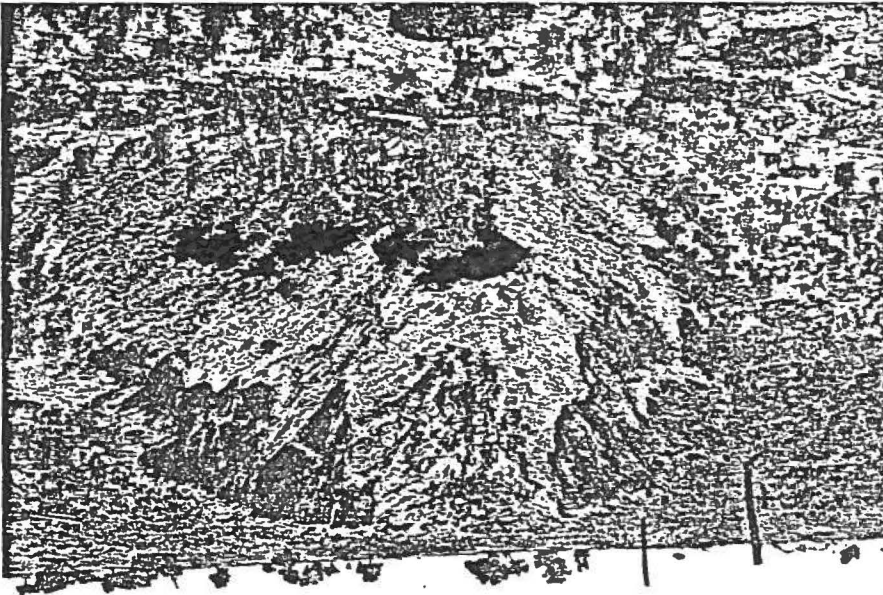
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Inclined shaft (arrow) in NE/4, Sec. 26



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Portal of inclined shaft

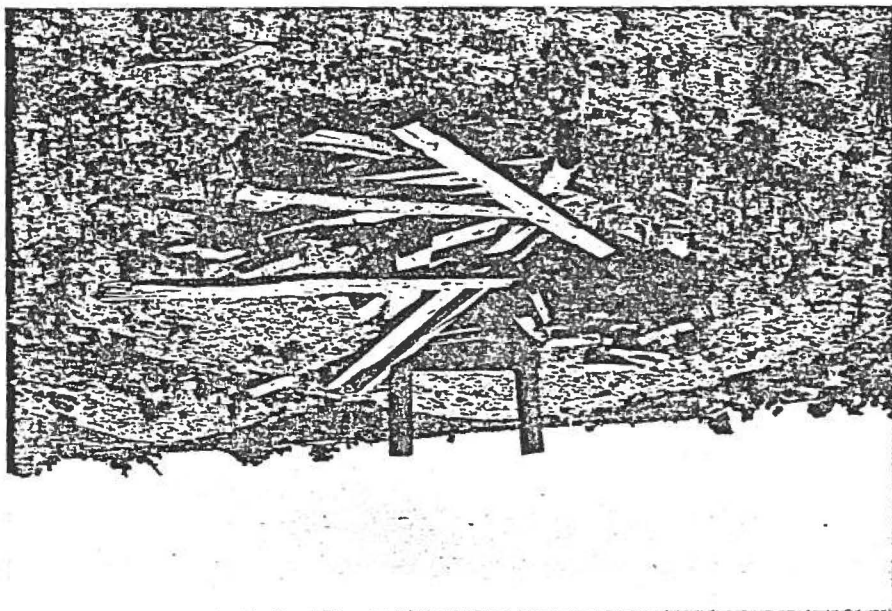


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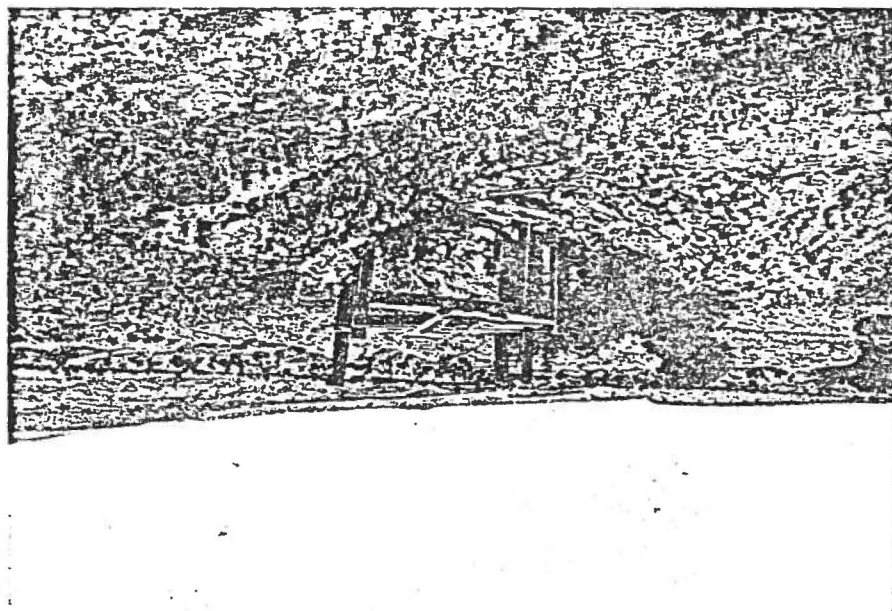


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Hoist platform (top) and explosives magazine (bottom) at inclined shaft

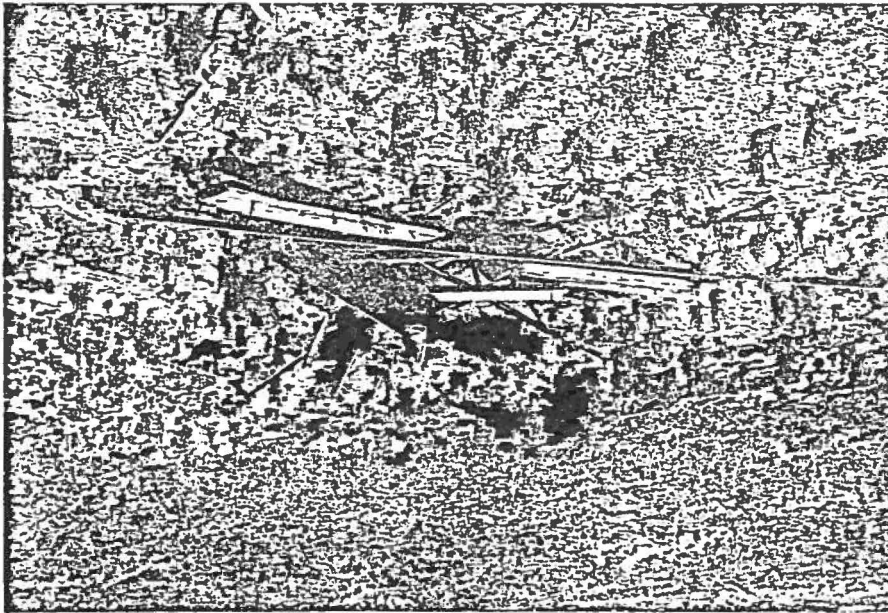


46
NAT



46
NAT

Open hole (possible ventilation raise)
near inclined shaft



P. O. Box 829
Carlsbad, New Mexico
August 28, 1957

MINE INSPECTION REPORT
INDIAN ALLOTTED LANDS
MCKINLEY COUNTY, NEW MEXICO

ALLOTTED LEASE
I-149-Ind-8909

by
H. B. Nickelson
Mining Engineer

U. S. DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
CONSERVATION DIVISION -- MINING BRANCH

On August 13, 1957, accompanied by J. W. Hager, Mining Engineer, U. S. Geological Survey, I made an inspection of Lease I-149-8909 (Uranium) on Indian allotted land (Esadero - Allottee No. 059387) located in NE $\frac{1}{4}$ of Section 26, T. 13 N., R. 10 W., N.M.P.M., and issued to George Hanosh and D. F. Hollica. Hanosh Mines, Inc. operates the mine.

The property was inactive on the day of the examination. The production came from an inclined shaft and open pits. The inclined shaft was barricaded by padlocked plank door and the opening was fenced. The Santa Fe Railroad Company was mining in Section 25, and in Section 23 near the boundary of this lease.

During the fiscal year 1957, the property produced 297.056 tons of high lime ore averaging 0.33 percent V_2O_5 and 0.224 percent U_3O_8 .

H. B. Nickelson
Mining Engineer

Orig. to: Supt., Navajo Agency
cc: Comm., Office of Indian Affairs, Washington
: Chief, Mining Branch
: Files